

## **STIC Biotechnology Systems Branch**

### **RAW SEQUENCE LISTING** **ERROR REPORT**

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Application Serial Number: 10/522,341  
Source: PCT  
Date Processed by STIC: 2-17-05

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FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

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1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
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Revised 01/24/05

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PCT

## RAW SEQUENCE LISTING

DATE: 02/17/2005

PATENT APPLICATION: US/10/522,341

TIME: 12:04:43

Input Set : A:\sequence listing.txt

Output Set: N:\CRF4\02172005\J522341.raw

2 <110> APPLICANT: Kock, Michael  
 3 Frank, Markus  
 4 Badur, Ralf  
 6 <120> TITLE OF INVENTION: Novel Selection Processes  
 8 <130> FILE REFERENCE: 532622010400  
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/522,341  
 C--> 11 <141> CURRENT FILING DATE: 2005-01-25  
 13 <160> NUMBER OF SEQ ID NOS: 71  
 15 <170> SOFTWARE: PatentIn Ver. 2.1

## ERRORED SEQUENCES

Does Not Comply  
 Corrected Diskette Needed

(pg. 14, 6) ←

350 <210> SEQ ID NO: 4  
 351 <211> LENGTH: 427  
 352 <212> TYPE: PRT  
 353 <213> ORGANISM: Artificial sequence  
 W--> 354 <220> FEATURE: plis insert  
 354 <223> OTHER INFORMATION: Description of the artificial sequence: coding for  
 355 cytosine deaminase (codA)  
 357 <400> SEQUENCE: 4  
 358 Met Ser Asn Asn Ala Leu Gln Thr Ile Ile Asn Ala Arg Leu Pro Gly  
 359 1 5 10 15  
 361 Glu Glu Gly Leu Trp Gln Ile His Leu Gln Asp Gly Lys Ile Ser Ala  
 362 20 25 30  
 364 Ile Asp Ala Gln Ser Gly Val Met Pro Ile Thr Glu Asn Ser Leu Asp  
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 371 65 70 75 80  
 373 Thr Leu Phe Glu Gly Ile Glu Arg Trp Ala Glu Arg Lys Ala Leu Leu  
 374 85 90 95  
 376 Thr His Asp Asp Val Lys Gln Arg Ala Trp Gln Thr Leu Lys Trp Gln  
 377 100 105 110  
 379 Ile Ala Asn Gly Ile Gln His Val Arg Thr His Val Asp Val Ser Asp  
 380 115 120 125  
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 383 130 135 140  
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 386 145 150 155 160  
 388 Leu Ser Tyr Pro Asn Gly Glu Ala Leu Leu Glu Glu Ala Leu Arg Leu  
 389 165 170 175

←  
 FYI:  
plis insert  
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 <221>, <222>  
 ok <223>  
 is present.

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/522,341

DATE: 02/17/2005

TIME: 12:04:43

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Output Set: N:\CRF4\02172005\J522341.raw

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394 Tyr Gly Val Glu Ser Leu His Lys Thr Phe Ala Leu Ala Gln Lys Tyr
395                195                200                205
397 Asp Arg Leu Ile Asp Val His Cys Asp Glu Ile Asp Asp Glu Gln Ser
398                210                215                220
400 Arg Phe Val Glu Thr Val Ala Ala Leu Ala His His Glu Gly Met Gly
401 225                230                235                240
403 Ala Arg Val Thr Ala Ser His Thr Thr Ala Met His Ser Tyr Asn Gly
404                245                250                255
406 Ala Tyr Thr Ser Arg Leu Phe Arg Leu Leu Lys Met Ser Gly Ile Asn
407                260                265                270
409 Phe Val Ala Asn Pro Leu Val Asn Ile His Leu Gln Gly Arg Phe Asp
410                275                280                285
412 Thr Tyr Pro Lys Arg Arg Gly Ile Thr Arg Val Lys Glu Met Leu Glu
413                290                295                300
415 Ser Gly Ile Asn Val Cys Phe Gly His Asp Asp Val Phe Asp Pro Trp
416 305                310                315                320
418 Tyr Pro Leu Gly Thr Ala Asn Met Leu Gln Val Leu His Met Gly Leu
419                325                330                335
421 His Val Cys Gln Leu Met Gly Tyr Gly Gln Ile Asn Asp Gly Leu Asn
422                340                345                350
424 Leu Ile Thr His His Ser Ala Arg Thr Leu Asn Leu Gln Asp Tyr Gly
425                355                360                365
427 Ile Ala Ala Gly Asn Ser Ala Asn Leu Ile Ile Leu Pro Ala Glu Asn
428                370                375                380
430 Gly Phe Asp Ala Leu Arg Arg Gln Val Pro Val Arg Tyr Ser Val Arg
431 385                390                395                400
433 Gly Gly Lys Val Ile Ala Ser Thr Gln Pro Ala Gln Thr Thr Val Tyr
434                405                410                415
436 Leu Glu Gln Pro Glu Ala Ile Asp Tyr Lys Arg
437                420                425

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4798 &lt;210&gt; SEQ ID NO: 50

4799 &lt;211&gt; LENGTH: 27

4800 &lt;212&gt; TYPE: DNA

4801 &lt;213&gt; ORGANISM: Artificial sequence

W--&gt; 4802 &lt;220&gt; FEATURE:

4803 &lt;223&gt; OTHER INFORMATION: Description of the artificial sequence:

4804 oligonucleotide primer

4806 &lt;400&gt; SEQUENCE: 50

4807 cgtgaatacgcgcgtggagtcg

4810 &lt;210&gt; SEQ ID NO: 51

4811 &lt;211&gt; LENGTH: 26

4812 &lt;212&gt; TYPE: DNA

4813 &lt;213&gt; ORGANISM: Artificial sequence

W--&gt; 4814 &lt;220&gt; FEATURE:

4815 &lt;223&gt; OTHER INFORMATION: Description of the artificial sequence:

4816 oligonucleotide primer

4818 &lt;400&gt; SEQUENCE: 51

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/522,341

DATE: 02/17/2005

TIME: 12:04:44

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 4844 <212> TYPE: DNA  
 4845 <213> ORGANISM: Artificial sequence

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 4847 <223> OTHER INFORMATION: Description of the artificial sequence:  
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 4850 <400> SEQUENCE: 53

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 5507 <211> LENGTH: 1011  
 5508 <212> TYPE: DNA  
 5509 <213> ORGANISM: Zea mays

W--> 5510 <220> FEATURE:  
 5511 <221> NAME/KEY: CDS  
 5512 <222> LOCATION: (1)..(981)  
 5513 <223> OTHER INFORMATION: coding for 5-methylthioribose kinase  
 5515 <400> SEQUENCE: 59

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5517	Ala	Arg	Ala	Leu	Leu	Ser	Ser	Pro	Leu	Ala	Gly	Ala	Ser	Pro	Asp	Cys	
5518	1					5					10				15		
5520	cag	tca	gcc	tca	gcc	atg	gcc	gcg	gag	gag	gag	cag	ggc	ttc	cgc	ccg	96
5521	Gln	Ser	Ala	Ser	Ala	Met	Ala	Ala	Glu	Glu	Glu	Gln	Gly	Phe	Arg	Pro	
5522			20						25					30			
5524	ctg	gac	gag	tcg	tcc	ctg	ctc	gcc	tac	atc	aag	gcc	acg	ccg	gcg	ctc	144
5525	Leu	Asp	Glu	Ser	Ser	Leu	Leu	Ala	Tyr	Ile	Lys	Ala	Thr	Pro	Ala	Leu	
5526			35						40					45			
5528	gcc	tcc	cgc	ctc	ggc	ggc	ggg	ggc	agt	cta	gac	tcc	atc	gag	atc	aag	192
5529	Ala	Ser	Arg	Leu	Gly	Gly	Gly	Gly	Ser	Leu	Asp	Ser	Ile	Glu	Ile	Lys	
5530			50					55					60				
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5537	Ala	Gly	Ala	Ile	Val	Val	Lys	Gln	Ala	Leu	Pro	Tyr	Val	Arg	Cys	Val	
5538					85					90				95			
5540	ggg	gat	tcg	tgg	ccc	atg	acg	cgg	gag	cgc	gcc	tac	ttc	gag	gcc	tcc	336
5541	Gly	Asp	Ser	Trp	Pro	Met	Thr	Arg	Glu	Arg	Ala	Tyr	Phe	Glu	Ala	Ser	
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5545	Thr	Leu	Arg	Glu	His	Gly	Arg	Leu	Cys	Pro	Glu	His	Thr	Pro	Glu	Val	
5546					115					120				125			
5548	tac	cac	ttc	gac	cgg	acc	ttg	tcg	ctg	atg	ggg	atg	cgc	tac	atc	gag	432
5549	Tyr	His	Phe	Asp	Arg	Thr	Leu	Ser	Leu	Met	Gly	Met	Arg	Tyr	Ile	Glu	
5550			130					135					140				
5552	ccc	ccg	cac	atc	atc	ctc	cgc	aag	ggc	ctc	gtc	gcc	ggg	gtc	gag	tac	480
5553	Pro	Pro	His	Ile	Ile	Leu	Arg	Lys	Gly	Leu	Val	Ala	Gly	Val	Glu	Tyr	
5554	145					150					155				160		

20

20

48

96

144

192

240

288

336

384

432

480

160

20 - see  
 pg. 2  
 For error  
 explanation.

file://C:\CRF4\Outhold\VsrJ522341.htm

2/17/05

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/522,341

DATE: 02/17/2005

TIME: 12:04:44

Input Set : A:\sequence listing.txt

Output Set: N:\CRF4\02172005\J522341.raw

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5558 165 170 175
5560 ttc acc tcc ctc ctc tat aac aat acc acg gat cat aag aac gga gtt 576
5561 Phe Thr Ser Leu Leu Tyr Asn Asn Thr Thr Asp His Lys Asn Gly Val
5562 180 185 190
5564 gct aag tac tct gcg aac gtg gag atg tgt agg ctc acg gag caa gtt 624
5565 Ala Lys Tyr Ser Ala Asn Val Glu Met Cys Arg Leu Thr Glu Gln Val
5566 195 200 205
5568 gtg ttc tcg gac cca tac cgt gtt tcc aaa ttt aat cgg tgg acc tcg 672
5569 Val Phe Ser Asp Pro Tyr Arg Val Ser Lys Phe Asn Arg Trp Thr Ser
5570 210 215 220
5572 cct tat ctc gac aaa gat gct gag gca gtt cgc gag gat gat gag ctc 720
5573 Pro Tyr Leu Asp Lys Asp Ala Glu Ala Val Arg Glu Asp Asp Glu Leu
5574 225 230 235 240
5576 aag ttg gaa gta gct ggg ctg aaa tcg atg ttt atc gag aga gct caa 768
5577 Lys Leu Glu Val Ala Gly Leu Lys Ser Met Phe Ile Glu Arg Ala Gln
5578 245 250 255
5580 gct ctg att cat gga gat ctc cac act ggt tct atc atg gtg acc gaa 816
5581 Ala Leu Ile His Gly Asp Leu His Thr Gly Ser Ile Met Val Thr Glu
5582 260 265 270
5584 gtt caa ctc aag tca ttg atc cag aat ttg ggt tct atg ggg cca atg 864
5585 Val Gln Leu Lys Ser Leu Ile Gln Asn Leu Gly Ser Met Gly Pro Met
5586 275 280 285
5588 ggg ttt gat att ggg agc ctt cct tgg aaa cct gat ttt ggg cat act 912
5589 Gly Phe Asp Ile Gly Ser Leu Pro Trp Lys Pro Asp Phe Gly His Thr
5590 290 295 300
5592 atg cac aga atg ggc atg ctg atc aag cga atg atc gta agg ctt aca 960
5593 Met His Arg Met Gly Met Leu Ile Lys Arg Met Ile Val Arg Leu Thr
5594 305 310 315 320
5596 aga atg gat ctt gaa gac aat tgaagagtcg tggaatttgt tccacaaaaa 1011
E--> 5597 arg met asp Leu glu asp asn

```

325

move to 325 delete

10/522,341

Page 5

&lt;210&gt; 55

&lt;211&gt; 5674

&lt;212&gt; DNA

&lt;213&gt; Artificial sequence

&lt;220&gt;

<223> Description of the artificial sequence: vector  
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&lt;400&gt; 55

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aaggaggaag acaagggaag ataagggtgc aggcctgtg caaggtaaga agatggaaat 5400  
ttgatagagg tacgctacta tacttatact atacgctaag ggaatgcttg tatttatacc 5460  
ctataccccc taataacccc ttatcaattt aagaaataat ccgcataagc ccccgcttaa 5520  
aaattggtat cagagccatg aataggctca tgaccaaacc tcaagaggat aaaacctcac 5580  
caaaatacga aagagttctt aactctaaag ataaaagatc tttcaagatc aaaactagtt 5640  
ccctcacacc ggtgacgggg atcgcgatgg gtac 5674

pls explain  
"N" location.

See error  
explanation on  
page 7.

The type of errors shown exist throughout  
the Sequence Listing. Please check subsequent  
sequences for similar errors.

## VARIABLE LOCATION SUMMARY

DATE: 02/17/2005

PATENT APPLICATION: US/10/522,341

TIME: 12:04:45

Input Set : A:\sequence listing.txt

Output Set: N:\CRF4\02172005\J522341.raw

Use of n's or Xaa's (NEW RULES):

Use of n's and/or Xaa's have been detected in the Sequence Listing.

Use of <220> to <223> is MANDATORY if n's or Xaa's are present.in <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

Error Explanation: 2

Seq#:55; N Pos. 5014

Seq#:57; N Pos. 6697

Seq#:59; N Pos. 1026



## VERIFICATION SUMMARY

PATENT APPLICATION: US/10/522,341

DATE: 02/17/2005

TIME: 12:04:45

Input Set : A:\sequence listing.txt

Output Set : N:\CRF4\02172005\J522341.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:228 M:283 W: Missing Blank Line separator, <220> field identifier  
L:231 M:283 W: Missing Blank Line separator, <220> field identifier  
L:236 M:283 W: Missing Blank Line separator, <220> field identifier  
L:354 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4 ✓  
L:357 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:4 ✓  
L:443 M:283 W: Missing Blank Line separator, <220> field identifier  
L:641 M:283 W: Missing Blank Line separator, <220> field identifier  
L:645 M:283 W: Missing Blank Line separator, <400> field identifier  
L:866 M:283 W: Missing Blank Line separator, <220> field identifier  
L:1092 M:283 W: Missing Blank Line separator, <220> field identifier  
L:1199 M:283 W: Missing Blank Line separator, <220> field identifier  
L:1384 M:283 W: Missing Blank Line separator, <220> field identifier  
L:1568 M:283 W: Missing Blank Line separator, <220> field identifier  
L:1713 M:283 W: Missing Blank Line separator, <220> field identifier  
L:1802 M:283 W: Missing Blank Line separator, <220> field identifier  
L:1891 M:283 W: Missing Blank Line separator, <220> field identifier  
L:2014 M:283 W: Missing Blank Line separator, <220> field identifier  
L:2260 M:283 W: Missing Blank Line separator, <220> field identifier  
L:2606 M:283 W: Missing Blank Line separator, <220> field identifier  
L:2834 M:283 W: Missing Blank Line separator, <220> field identifier  
L:3185 M:283 W: Missing Blank Line separator, <220> field identifier  
L:3413 M:283 W: Missing Blank Line separator, <220> field identifier  
L:3642 M:283 W: Missing Blank Line separator, <220> field identifier  
L:3754 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:37  
L:3847 M:283 W: Missing Blank Line separator, <220> field identifier  
L:4039 M:283 W: Missing Blank Line separator, <220> field identifier  
L:4225 M:283 W: Missing Blank Line separator, <220> field identifier  
L:4411 M:283 W: Missing Blank Line separator, <220> field identifier  
L:4597 M:283 W: Missing Blank Line separator, <220> field identifier  
L:4782 M:283 W: Missing Blank Line separator, <220> field identifier  
L:4802 M:283 W: Missing Blank Line separator, <220> field identifier  
L:4807 M:252 E: No. of Seq. differs, <211> LENGTH:Input:27 Found:21 SEQ:50 ✓  
L:4814 M:283 W: Missing Blank Line separator, <220> field identifier ✓  
L:4819 M:252 E: No. of Seq. differs, <211> LENGTH:Input:26 Found:20 SEQ:51 ✓  
L:4826 M:283 W: Missing Blank Line separator, <220> field identifier ✓  
L:4846 M:283 W: Missing Blank Line separator, <220> field identifier ✓  
L:4851 M:252 E: No. of Seq. differs, <211> LENGTH:Input:27 Found:20 SEQ:53 ✓  
L:4857 M:283 W: Missing Blank Line separator, <220> field identifier ✓  
L:4869 M:283 W: Missing Blank Line separator, <220> field identifier ✓  
L:4957 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:55 ✓  
L:4957 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:55 ✓  
L:4957 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:4980 ✓  
L:4975 M:283 W: Missing Blank Line separator, <220> field identifier ✓  
L:5087 M:283 W: Missing Blank Line separator, <220> field identifier ✓  
L:5203 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:57 ✓  
L:5203 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:57 ✓

## VERIFICATION SUMMARY

PATENT APPLICATION: US/10/522,341

DATE: 02/17/2005

TIME: 12:04:45

Input Set : A:\sequence listing.txt

Output Set: N:\CRF4\02172005\J522341.raw

L:5203 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57 after pos.:6660  
L:5262 M:283 W: Missing Blank Line separator, <220> field identifier  
L:5510 M:283 W: Missing Blank Line separator, <220> field identifier  
L:5597 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:1011  
L:5597 M:254 E: No. of Bases conflict, LENGTH:Input:325 Counted:1032 SEQ:59  
L:5597 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:6  
L:5597 M:112 C: (48) String data converted to lower case,  
L:5597 M:252 E: No. of Seq. differs, <211> LENGTH:Input:1011 Found:1032 SEQ:59  
L:5673 M:283 W: Missing Blank Line separator, <220> field identifier  
L:5761 M:283 W: Missing Blank Line separator, <220> field identifier  
L:5842 M:283 W: Missing Blank Line separator, <220> field identifier  
L:5923 M:283 W: Missing Blank Line separator, <220> field identifier  
L:6003 M:283 W: Missing Blank Line separator, <220> field identifier  
L:6015 M:283 W: Missing Blank Line separator, <220> field identifier  
L:6027 M:283 W: Missing Blank Line separator, <220> field identifier